

CLAIMS

1. Process for gluing at least one micro-structured substrate comprising upper coplanar plane areas and recesses between them, by means of a glue that can bond to these upper coplanar plane areas, this process being characterised in that it comprises the following steps:

- a grid is placed above the substrate,
- this grid is coated with glue using a tool which presses on the grid and locally brings this grid into contact with the upper coplanar plane areas, so as to deposit a film of glue droplets on these upper coplanar plane areas, and

- the grid is removed,

process in which the upper coplanar plane areas are treated before the film of glue droplets is deposited on it, this treatment being designed to adapt the wettability of these areas to the glue.

2. Process according to claim 1, in which the tool is a doctor blade.

20 3. Process according to claim 1, in which this treatment is designed to control spreading of glue droplets on the upper coplanar plane areas.

25 4. Process according to claim 1, in which the micro-structured substrate is closed with a closing substrate that is fixed to the upper coplanar plane areas by the glue deposited on them.

5. Process according to claim 4, in which recesses in the micro-structured substrate comprise areas which are provided with biological probes.

5 6. Process according to claim 4, in which the closing substrate comprises areas provided with biological probes, these areas being designed to be positioned facing the recesses in the micro-structured substrate after this micro-structured substrate has been closed.

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7. Process according to claim 4, in which the closing substrate comprises drillings through which a fluid will be added into the recesses in the micro-structured substrate.

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8. Process according to claim 4, in which a set of micro-structured substrates are collectively fabricated in advance on the same substrate, the upper plane areas of all the micro-structured substrates being coplanar, a film of glue droplets is deposited collectively on all of these upper plane areas, 20 all of the micro-structured substrates are closed by the same closing substrate and the micro-structured substrates thus closed are separated from each other.

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9. Process according to claim 4, in which a set of micro-structured substrates are collectively fabricated in advance on the same substrate, the upper plane areas of all the micro-structured substrates being coplanar, and a set of closing substrates are fabricated collectively on another substrate, also in advance, the micro-structured substrates and the 30 closing substrates are separated from each other and the micro-structured substrates are closed by the closing

substrates after depositing a film of glue droplets on the upper coplanar plane areas of each micro-structured substrate.

10. Process according to claim 4, in which each substrate
5 is made from a material chosen from among glass, silicon and polymers.